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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/487,868	01/20/2000	Masahiko Kikuzawa	35.C14184	3671

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EXAMINER

HENN, TIMOTHY J

ART UNIT PAPER NUMBER

2612

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/487,868

Applicant(s)

KIKUZAWA, MASAHIKO

Examiner

Timothy J Henn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-15 and 17 is/are rejected.
- 7) ☒ Claim(s) 8 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 May 2004 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5, 6, 9-11, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Murata et al. (US 5,345,264).

[claim 1]

Regarding claim 1, Murata discloses an image sensing apparatus (Figure 1) comprising: a noise reduction device that, utilizing time correlation of sensed images, reduces noise added to the sensed images by an internal apparatus factor (Figure 1, Item 100; Figure 2; c. 5, ll. 48-61; c. 6, ll. 12-41); a zoom controller that controls a zoom magnification factor of the image sensing apparatus (Figure 1, Item 42, ZOOM INSTRUCTION); a determination device that determines whether said zoom controller is executing a zoom operation (Figure 1, Item 34; c. 7, ll. 39-49; c. 7, l. 67 - c. 8, l. 10) and a setting device that sets a control value for time correlation in said noise reduction device in accordance with a determination by said determination device (c. 7, l. 67 - c. 8, l. 10). As can be seen from Figure 1, microcomputer 42 receives a zoom instruction signal and informs microcomputer 34, which outputs control signals to operation section 104 and memory control circuit 112. In response to the zoom operation performed at signal processing IC 200 the control value (i.e. K in Figure 2) is changed.

[claim 2]

Regarding claim 2, Murata discloses setting the control value to a control value providing a lower noise reduction amount than a noise reduction amount to be used when the zoom operation is stopped, when the determination device determines that a zoom operation is being executed (c. 7, l. 67 - c. 8, l. 10; The examiner notes that turning off the noise reduction device provides a "lower noise reduction amount" than if the noise reduction device is active).

[claim 3]

Regarding claim 3, Murata discloses setting the control value for noise reduction device in accordance with a magnification factor per unit time used by the zoom controller (c. 7, l. 67 - c. 8, l. 10; The examiner notes that if the magnification factor per unit time is zero, the noise reduction is activated, whereas if the magnification factor per unit time is non-zero, the noise reduction device is deactivated).

[claim 5]

Regarding claim 5, Murata discloses stepwise changes to the control value for the noise reduction device when a zoom operation switches from an execution state to a stop state (c. 7, l. 33 - c. 8, l. 10; Changing from an activated state ($0 < k < 1$) to a deactivated state ($k=1$)).

[claim 6]

Regarding claim 6, Murata discloses stepwise changes to the control value for the noise reduction device when a zoom operation switches from a stop state to an execution state (c. 7, l. 33 - c. 8, l. 10; Changing from a deactivated state ($k=1$) to an activated state ($0 < k < 1$)).

[claims 9-11 and 13-14]

Claims 9-11 and 13-15 are method claims corresponding to apparatus claims 1-3 and 5-6. Therefore, claims 9-11 and 13-14 are analyzed and rejected as previously discussed with respect to claims 1-3 and 5-6.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. (US 5,345,264) in view of Yoshimura et al. (US 5,140,424).

[claim 4]

Regarding claim 4, Murata discloses an exposure control device that controls an exposure of the picked-up image (Figure 1, Item 228). However, Murata does not disclose changing the control value for the noise reduction device in accordance with a control value for exposure control.

Yoshimura discloses a recursive noise reduction device (Figure 6) similar to that disclosed by Murata. Yoshimura further discloses changing the control value K for the noise reduction device in response to an average luminance level (i.e. a control value for exposure). Specifically, Yoshimura discloses deactivating the noise reduction device when an image of high luminance is taken and activating the noise reduction device when an image of low luminance is taken in order to effectively perform noise reduction (c. 6, l. 57 - c. 7, l. 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the control value of the noise reduction device of Murata in response to an exposure control value to effectively perform noise reduction as taught by Yoshimura.

[claim 12]

Claim 12 is a method claim corresponding to apparatus claim 4. Therefore, claim 12 is analyzed and rejected as previously discussed with respect to claim 4.

7. Claims 7, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. (US 5,345,264).

[claim 7]

Regarding claim 7, Murata discloses an electronic zoom device (Figure 1; c. 6, ll. 42-66) but does not disclose an optical zoom device for performing optical zooming. Official Notice is taken that the combined use of optical and electronic zoom in camera is notoriously well known in the art as a way to increase the total possible magnification available. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an optical zoom in Murata in order to increase the total possible magnification available.

[claim 15]

Claim 15 is a method claim corresponding to apparatus claim 7. Therefore, claim 15 is analyzed and rejected as previously discussed with respect to claim 7.

[claim 17]

Claim 17 contains all limitations of claim 9 with the additional limitation of a storage medium for storing a program for executing the claimed steps. Official Notice is taken that it is notoriously well known in the art to implement image processing methods in cameras as a program stored on a storage medium in order to allow for easy upgrading of the camera to perform updated signal processing procedures without the

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need for replacing camera hardware. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the steps claimed in claim 9 as a program stored on a storage medium.

Allowable Subject Matter

8. Claims 8 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Regarding claims 8 and 16, the prior art does not teach or fairly suggest an image sensing apparatus which sets a control value providing a lower noise reduction amount than the noise reduction amount used in an electronic zoom operation when an optical zoom operation is performed as claimed.

Conclusion


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J Henn whose telephone number is (571) 272-7310. The examiner can normally be reached on M-F 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R Garber can be reached on (571) 272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJH
3/10/05


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